




## Beware of On-Farm Manure Storage Hazards

RURAL  
HEALTH &  
SAFETY GUIDE

S-82

### BEWARE OF ON-FARM MANURE STORAGE HAZARDS

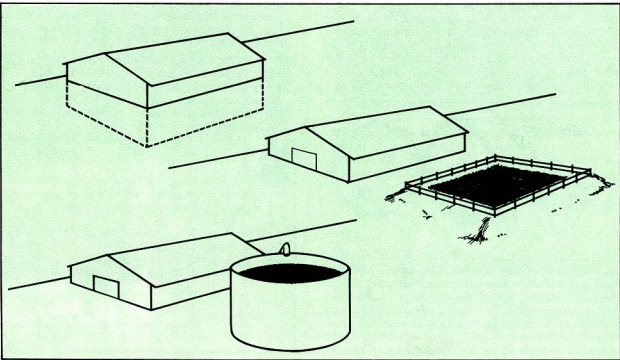
*by Bill Field, Extension Safety Specialist*

The uses of livestock confinement systems and large capacity, on-farm, liquid manure storage facilities have become well-established practices throughout Indiana. The primary advantages of liquid manure storage facilities are that they make the waste handling process less demanding on your time and allow for applications of manure on croplands at more convenient or appropriate times. In general, there are three types of liquid manure storage systems being used.

- Large manure storage tanks located directly underneath the livestock housing area.
- Manure storage located away from the livestock housing areas in open lagoons or ponds.
- Above ground, silo-type, manure storage structures.

In all three types, the manure is flushed from the livestock housing area with added water and then agitated by various means to form a liquid slurry. This slurry is then pumped periodically from the storage area into applicator tank wagons or through irrigation systems for application on cropland as a valuable fertilizer and soil conditioner.

When animal waste of any type is being stored in large quantities, a number of hazards are present for both man and animal. The most obvious hazard is the potential danger of falling into one of the large open storage areas and drowning. There is also the danger from gases which are produced as the manure is decomposed by bacterial action. During the decomposition process, a variety of gases are released which can be hazardous to both people and livestock. The most common of these



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This publication deals with the design, construction and management of livestock waste lagoons. Its purpose is to help a confinement operator: (1) assess the potential benefits of a lagoon to his waste handling program, (2) apply the principles of proper lagoon design and construction, and (3) understand the steps required to start up and maintain a biologically-active facility. At the end of this publication, a worksheet (with example) is provided for determining lagoon capacities and dimensions; also listed are sources of additional information concerning livestock waste handling. To obtain a copy, please contact:

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